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Medical Practice Question

EDITOR'S NOTE: *From time to time medical practice questions from organizations with a legitimate interest in the information are referred to the Scientific Board by the Quality Care Review Commission of the California Medical Association. The opinions offered are based on training, experience and literature reviewed by specialists. These opinions are, however, informational only and should not be interpreted as directives, instructions or policy statements.*

Chorionic Villus Biopsy

QUESTION:

Is chorionic villus biopsy considered accepted medical practice or is it investigational?

OPINION:

In the opinion of the Scientific Advisory Panel on Obstetrics and Gynecology, chorionic villus biopsy for the prenatal diagnosis of genetic disorders and potential birth defects is considered investigational. Considered by many researchers to be a promising alternative to amniocentesis, this new technique permits a small amount of fetal tissue to be collected before the 12th week of gestation. The material is then subjected to a series of chromosomal and biochemical tests that can detect a wide variety of genetic defects.

Chorionic villus biopsy offers some attractive advantages over amniocentesis. It can be done in the first trimester of pregnancy, the preliminary test results can be obtained almost immediately and early detection allows termination of an abnormal pregnancy when the maternal risk is lower than it is at 18 or 19 weeks, the usual time for termination following amniocentesis. Further, early detection may allow treatment of potential problems in utero, such as phenylketonuria.

These desirable features, however, are offset by a number of unanswered questions regarding the procedure's safety (for mother and fetus), its efficacy and scientific reliability. It is also noteworthy that chorionic villus biopsy cannot detect all of the same problems as amniocentesis, such as neural tube defects, environmentally-induced malformations and other late developing problems. And it may detect apparent defects that never appear in liveborn infants.

Further clinical investigation is required to document the safety and diagnostic accuracy of chorionic villus biopsy before it can be considered accepted medical practice.